

REMARKS

Reconsideration and allowance of the subject application are respectfully requested.

Upon entry of this Amendment, claims 1-14 are pending in the application. In response to the Office Action (Paper No. 4), Applicant respectfully submits the pending claims define patentable subject matter.

I. Preliminary Matters

The Examiner is requested to indicate acceptance of the drawings filed along with the application on December 19, 2000 in the next action.

II. Rejection of claims 2 and 8 under 35 U.S.C. § 112

The Examiner maintains that claims 2 and 8 are indefinite because the limitation "the response" does not have a proper antecedent basis. By this Amendment, Applicant has amended claims 1-14 to improve clarity. Accordingly, the Examiner is requested to remove the § 112, second paragraph, rejection of record.

III. The Present Invention

The present invention is directed to a method and terminal for obtaining information regarding the identity of a caller for incoming calls. As shown in the Figure, a public switched telephone network (PSTN) 1 is connected to a private automatic branch exchange (PABX) 2 of a private network and a radio interface 4 (typically a base transceiver station) for transmission via

a public mobile network. A terminal 10 (e.g., a mobile station of a mobile public network) communicably linked to the radio interface 4. A wireless application protocol (WAP) server 6 enables data services, and in particular internet services, to be offered on terminals of public mobile networks. The WAP server is connected to the radio interface 4, to the PSTN 1 and to the Internet and/or an intranet 8.

When the terminal 10 receives an incoming call, the terminal 10 also receives the caller's number from the mobile network. The terminal 10 includes a directory 12 which can be used to search for a directory entry in which the telephone number is identical to the caller's number. The terminal also includes an agent 14 (i.e., a program or an application) which prepares one or more requests indicating the caller's number and whose objective is to identify the caller on the basis of the caller's number. The agent can be activated on receiving the caller's number, or if checking the directory shows that there is no directory entry with the same telephone number, or after the end of the incoming call for which the caller's number was transmitted. The agent can also be activated each time that a caller's number is shown on the user's terminal.

The request can be addressed to any source of identification information including a data server, a search engine or a WAP portal. The request prepared by the agent can be sent on any channel available to the terminal such as a data channel in connectionless or connected packet mode or a voice channel with dual tone multi-frequency (DTMF) coding or a low-speed modem. The response to the requests can be returned to the terminal via the same channel or different channels. The requests can be prepared by the agent on the basis of a request file 18 which can contain all possible requests.

If the result of the request corresponds to the required identification (i.e., a user name), the agent can display the information obtained or store it in the directory, with or without validation by the terminal user. If the result does not correspond to the required identification information, the agent can ignore the result and trigger a next request.

IV. Prior Art Rejections

A. Disclosure of DeFazio

DeFazio discloses a self-provisioning names database which adds new names to a database for associating names to calling address data in a caller identification with name delivery service each time a new caller places a call to a service subscriber.

As shown in Figure 1, a calling party 1 places a call through the public switched telephone network 2 and is ultimately connected to a local switch 3 serving a called subscriber 4 having a telephone and an associated caller identification display unit 4a. A number to name translation database 5 is communicably linked to the local switch 3 and is preferably located as close to the called subscriber 4 as possible and may be located, for example, at a central office serving the subscriber 4, at a private branch exchange (not shown) or on the customer's premises. A typical national or other names database 6 is communicably linked to the names database 5. The names database 6 typically on request of switch 3 performs a translation from a telephone address such as a telephone number or Internet address to a name and forwards for display on display 4a.

As shown in Figure 3A-3C, when a caller A (calling party 1) initiates a call to called party B (subscriber apparatus 4), an originating local switch C of the public switched network 2, based on the dialed digits received from caller A, begins signaling to establish a voice/data link between caller A and called party B connected to a terminating central office D (local switch 3). The signaling information, including calling party number of caller A (CgPN-A) and the called party number of called party B (CdPN-B), is forwarded to local switch 3 via a signaling link. The call may be routed via one or more intermediate switches in one or more public switched telephone networks J (public switched network 2) to local switch 3. At least a signaling link will be terminated at local switch 3 and, via the signaling link, at least the terminating central office D (switch 3) will receive the calling party telephone number or address CgPN-A and the called party number or address CdPN-B.

The terminating office D (switch 3) first determines what services, if any, the called party B has subscribed to. If the called party B is a subscriber to the caller name service, then, the local switch 3 initiates the creation and transmittal of an SS7 or related query for processing. The query may include a service indicator for the present service (for example, shorthand data representing Caller Name Delivery if the service is so named) and the calling party's telephone number CgPN-A. The SS7 network K, using, for example, Global Title Translation or related translation service, routes the query to a first SS7 processor F associated with database 5 for processing or a regional SS7 processor, m, having a names database, N. The processor F checks the name database 5 for a match with CgPN-A.

If a match is found in database 5, SS7 Processor F creates and transmits an SS7 query response via SS7 network K containing Name-A to terminating central office switch D (switch 3) which provides the information to called party B (subscriber apparatus 4). If a match is not found, the SS7 processor F initiates a query via, for example, a standard interface (e.g. telecommunications protocol/Internet Protocol (TCP/IP) interface) to Names Processor G associated with a database 6. The names processor G creates and transmits a query response containing CgPN-A and Name-A to SS7 Processor F (if it can). The SS7 processor F, responsive to receipt of the names processor response, creates and transmits a related query response including Name-A via the SS7 network K to terminating end office D (local switch 3) which provides the information to called party B (subscriber apparatus 4).

B. Analysis

Claims 2 and 8 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 1-5, 7-11, 13 and 14 are rejected under 35 U.S.C. § 102(b) as being anticipated by DeFazio et al. (U.S. Patent No. 5,940,484; hereafter "DeFazio"). Claims 6 and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over DeFazio. Applicant respectfully submits the claimed invention would not have been anticipated by or rendered obvious in view of DeFazio.

The method of independent claim 1 recites selecting at the agent of the terminal at least one external server likely to be able to provide the information regarding the identity of the caller; preparing at the agent of the terminal a request indicating the telephone number of the caller and requesting the information regarding the identity of the caller; and sending from the

agent of the terminal the request to the server. Similarly, independent claim 7 recites the terminal comprises an agent configured to select at least one external server likely to be able to provide information regarding an identity of a caller, prepare a request indicating the telephone number of the caller and requesting the information regarding the identity of the caller, and send the request from the terminal to the server. Thus, claims 1 and 7 require the agent to be included in the terminal such that all operations regarding selection the external server and preparation and transmission of the request for the information regarding the identity of the caller are performed at the terminal receiving the incoming call.

On the other hand, DeFazio teaches that the local switch 3 (rather than the terminal receiving the incoming call) performs operations relating to requesting an associated name of a caller from the databases 5 and 6. Nonetheless, Applicant has amended independent claims 1 and 7 to improve clarity by reciting an agent is a program or an application which is stored and activated on the terminal. Accordingly, Applicant respectfully submits that the claimed agent is precluded from reading on the operations of the local switch 3 and the names databases 5 and 6 of DeFazio.

In view of the above, Applicant respectfully submits that claims 1-14 should be allowable because the cited reference does not teach or suggest all of the features of the claims.

V. Conclusion

Reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Patent Application No. 09/739,305

best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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